

CLAIMS LISTING

1. Canceled

2. (Previously Presented) A flexible tube for an endoscope, comprising:

an elongated tubular core body; and

an outer cover which is provided over the core body, the outer cover having a portion which is formed into a laminate structure composed of at least three layers, the layers of the laminate structure including an inner layer, an outer layer and at least one intermediate layer formed between the inner layer and the outer layer, wherein the intermediate layer of the outer cover has a higher elasticity than the inner and outer layers so that the intermediate layer functions as cushioning between the inner layer and the outer layer.

3. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the core body has a plurality of holes and/or a plurality of recesses.

4. (Currently Amended) ~~The flexible tube as claimed in Claim 3;~~

A flexible tube for an endoscope, comprising:

an elongated tubular core body; and

an outer cover which is provided over the core body, the outer cover having a portion which is formed into a laminate structure composed of at least three layers, the layers of the laminate structure including an inner layer, an outer layer and at least one intermediate layer formed between the inner layer and the outer layer, wherein the intermediate layer of the

outer cover has a higher elasticity than the inner and outer layers so that the intermediate layer functions as cushioning between the inner layer and the outer layer;

wherein the core body has a plurality of holes and/or a plurality of recesses; and

wherein the core body includes:

a coil that is formed by winding a band-shaped material into a spiral form; and

B1 Cont. a reticular tube that is formed by weaving a plurality of fine wires together, the reticular tube being provided over the coil.

35. (Previously Presented) The flexible tube as claimed in Claim *3*, wherein the inner layer of the outer cover has projections which are integrally formed on the inner layer so that the projections project into the holes and/or the recesses.

16. (Previously Presented) The flexible tube as claimed in Claim *4*, wherein at least one of the fine wires forming the reticular tube is coated with a synthetic resin so that a coating of the synthetic resin is provided on the fine wire, in which at least a part of the coating is fused with and bonded to the inner layer of the outer cover.

17. (Previously Presented) The flexible tube as claimed in Claim *6*, wherein the inner layer of the outer cover contains a material having a compatibility with the synthetic resin of the coating.

8. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the portion of the laminate structure of the outer cover has a substantially uniform thickness over its entire region.

9. (Previously Presented) The flexible tube as claimed in Claim 2, wherein any one of the inner, outer and intermediate layers is different from one of the other layers in its physical property and/or chemical property.

Bl Cont 10. (Previously Presented) The flexible tube as claimed in Claim 2, wherein any one of the inner, outer and intermediate layers is different from one of the other layers in its hardness.

11. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the outer layer of the outer cover contains a material having resistance to a chemical.

12. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the intermediate layer of the outer cover is formed of a material having higher elasticity than that of the outer layer.

13. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the outer layer of the outer cover is formed of a material having higher hardness than that of the inner layer or the intermediate layer.

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14. (Previously Presented) The flexible tube as claimed in Claim 2, wherein at least a part of the outer layer of the outer cover has higher hardness than that of the inner layer or the intermediate layer.

15. Canceled

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16. (Previously Presented) The flexible tube as claimed in Claim 2, wherein at least one of the inner, outer and intermediate layers of the outer cover is formed of a material that contains at least one selected from the group consisting of polyurethane-based elastomer, polyester-based elastomer, polyolefine-based elastomer, polystyrene-based elastomer, polyamide-based elastomer, fluorine-based elastomer, and fluororubber.

17. (Previously Presented) The flexible tube as claimed in Claim 2, wherein each of the inner, outer and intermediate layers of the outer cover is formed of a material that contains at least one selected from the group consisting of polyurethane-based elastomer, polyester-based elastomer, polyolefine-based elastomer, polystyrene-based elastomer, polyamide-based elastomer, fluorine-based elastomer, and fluororubber.

18. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the outer cover is provided over the core body through an extrusion molding process.

19. (Previously Presented) The flexible tube as claimed in Claim 2, wherein the flexible tube has tip and base ends, and flexibility of the flexible tube increases in a gradual or stepwise manner along the direction from the base end toward the tip end.

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~~20~~. (Previously Presented) The flexible tube as claimed in Claim ~~2~~¹, wherein any one of the layers constituting the portion of the laminate structure of the outer cover is different from one of the other layers in its physical property and/or chemical property.

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~~21~~. (Previously Presented) The flexible tube as claimed in Claim ~~20~~¹⁵, wherein any one of layers constituting the laminate structure of the outer cover is different from one of the other layers in hardness.

31 cont.
22. (Withdrawn) The flexible tube as claimed in Claim 2, wherein at least one of the layers constituting the portion of the laminate structure has a thickness-varying region where the thickness of the layer varies in its longitudinal direction.

23. (Withdrawn) The flexible tube as claimed in Claim 22, wherein the thickness-varying region extends substantially over an entire region of the layer, and within the thickness-varying region the thickness of the layer varies in its longitudinal direction in a gradual or stepwise manner.

24. (Withdrawn) The flexible tube as claimed in Claim 22, wherein the layer with the thickness-varying region has at least one uniform thickness region which is formed so as to adjoin the thickness-varying region.

25. (Withdrawn) The flexible tube as claimed in Claim 22, wherein the layer having the thickness-varying region is formed of a material that is different from materials constituting the other layers in its hardness.

26. (Withdrawn) The flexible tube as claimed in Claim 22, wherein each of at least two of the layers constituting the portion of the laminate structure has a thickness-varying region where the thickness of the layer varies in its longitudinal direction.

27. (Withdrawn) The flexible tube as claimed in Claim 22, wherein the outer cover is provided over the core body through an extrusion molding process.

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28. (Withdrawn) The flexible tube as claimed in Claim 27, wherein in the extrusion molding process a constituent material for each of the layers is fed at a predetermined feeding rate while the core body is fed at a predetermined feeding speed, in which the thickness of the layer having the thickness-varying region is controlled by adjusting the feeding rate of the material for the layer during the extrusion molding process and/or adjusting the feeding speed of the core body during the extrusion molding process.

29. (Withdrawn) The flexible tube as claimed in Claim 2, wherein at least one of the layers constituting the portion of the laminate structure has at least two regions and at least one boundary part along its longitudinal direction, and one of the regions is contiguous to the other region through the boundary part, in which one of the regions is different from the other regions adjacent thereto in its physical property and/or chemical property.

30. (Withdrawn) The flexible tube as claimed in Claim 29, wherein one of the regions is formed of a material which is different from that forming the other region adjacent thereto.

31. (Withdrawn) The flexible tube as claimed in Claim 29, wherein each of at least two of the layers constituting the portion of the laminate structure has at least two regions and at least one boundary part along its longitudinal direction, and one of the regions is contiguous to the other region through the boundary part, in which one of the regions is different from the other region adjacent thereto in its physical property and/or chemical property.

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32. (Withdrawn) The flexible tube as claimed in Claim 31, wherein the outer cover is formed such that the boundary part of one layer is not located above or below the boundary part of the other layer in its thickness direction.

33. (Withdrawn) The flexible tube as claimed in Claim 29, wherein the boundary part is formed as a property-varying part within which the physical property and/or the chemical property of the layer gradually vary in its longitudinal direction.

34. (Withdrawn) The flexible tube as claimed in Claim 33, wherein the boundary part is formed of a mixture of a material constituting one of the regions and a material constituting the other region.

35. (Withdrawn) The flexible tube as claimed in Claim 29, wherein the layer having the boundary part is formed such that the physical property and/or the chemical property within the boundary part vary in its longitudinal direction in a substantially stepwise manner.

36. (Withdrawn) The flexible tube as claimed in Claim 29, wherein in the layer having the at least two regions, one of the regions is different from the other region adjacent thereto *of* in its hardness.

37. (Withdrawn) The flexible tube as claimed in Claim 29, wherein the flexible tube has tip and base ends, and flexibility of the flexible tube increases in a gradual or stepwise manner along the direction from the base end to the tip end.